REMARKS

In the ***non-final*** Office Action of October 6, 2010 the Office noted that claims 1, 3-9 and 11-13 were pending and rejected claims 1, 8, 9 and 11. In this amendment claims 1, 8, 9 and 11 have been amended, claim 6 and 7 been canceled, and, thus, in view of the foregoing claims 1, 3-5, 8, 9 and 11-13 remain pending for reconsideration which is requested. No new matter has been added. The Office's rejections and objections are traversed below.

REJECTIONS under 35 U.S.C. § 102

Claims 1 and 3 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Schmutz, U.S. Patent No. 6,547,188. The Applicants respectfully disagree and traverse the rejection with an argument and amendment.

Schmutz discusses reducing the size and weight of the mechanical elements requires for fuel tank inerting, and providing a system which also requires a lesser supply of compressed air than in the prior art (see Schmutz col. 1 lines 44-49).

The Applicants have amended claim 1 consistent with the comments of the Office on pages 6 and 7 of the Office Action to recite "a control device ***controlling*** said air separation device to supply nitrogen-enriched air into said at least one aircraft fuel tank during cruise conditions and to supply nitrogen-

enriched air at a higher flow rate during descent, whereby the ***air separation device provides the*** whole of the mass of gas required to maintain the pressure of the fuel tank ***at or above the ambient pressure during descent.***" (Emphasis added)

Support for the amendment may be found, for example, in ¶¶ 0013-0015 of the printed publication version of the Specification. The Applicants submit that no new matter is believed to have been added by the amendment of claims 1.

Schmutz discusses an arrangement in which an air separation module is operated to provide nitrogen-enriched air (NEA) with a very low oxygen content during cruise flight, so as to effectively pre-load the ullage of the tanks with NEA with a high nitrogen content, and then, during descent, the NEA is mixed with ambient air to provide a mixture which is still rich in nitrogen compared to air, the mixture being introduced at a higher flow rate. Schmutz is somewhat ambiguous as to whether the increased flow rate is achieved solely by the addition of ambient air or whether the flow rate of the NEA to the mixture is also increased. In any event, the Schmutz does not disclose the concept of operating the air separating module at two different rates and it also clearly requires inward venting of ambient air during the descent phase.

For at least the reasons discussed above, claim 1 and the claims dependent therefrom are not anticipated by Schmutz.

Claims 6 and 7 stand rejected under 35 U.S.C. § 102(b)

as being anticipated by Manatt, U.S. Patent No. 4,556,180. The Applicants respectfully disagree and traverse the rejection with an argument.

Claims 6 and 7 have been canceled.

Withdrawal of the rejections is respectfully requested.

REJECTIONS under 35 U.S.C. § 103

Claims 1, 4, 5, 9, 11 and 13 stand rejected under 35 U.S.C. § 103(a) as being obvious over Manatt. The Applicants respectfully disagree and traverse the rejection with an argument and amendment.

Claim 1 was amended as discussed above. Manatt discusses a fuel tank inerting system for a helicopter, in which the performance of an air separation module is improved by providing a pump to pump away permeate. The document discloses feeding the NEA into a fuel tank but does not refer to changing the flow rate in accordance with flight condition.

There is specific reference to venting surplus and so it would seem reasonable to assume that, without any further explanation, the air separation module is operated at a uniform rate. It is possible that the pressure differences experienced by the fuel tank of a military helicopter do not span such a wide range and therefore inerting from a constant flow rate device may be realistic.

The only reference to control of the flow is a shut off

valve which is used to terminate operation of the inerting system when maximum power is required from the power plant from which the bleed air for operation of the ASM is taken.

By contrast, the present claims have all of the air that enters the fuel tanks through an air separation device and varies the throughput of the air separation device to ensure that all of the mass of gas required to maintain the ullage pressure at or above ambient is delivered thereby without any contribution by untreated ambient air.

For at least the reasons discussed above, Manatt fails to render obvious the features of claim 1 and the claims dependent therefrom.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being obvious over Manatt in view of Schmutz. The Applicants respectfully disagree and traverse the rejection with an argument.

For at least the reasons discussed above, Manatt and Schmutz, taken separately or in combination, fail to render obvious the features of claim 8.

Claim 12 stands rejected under 35 U.S.C. § 103(a) as being obvious over Manatt in view of Schmutz in view of Applicant Admitted Prior Art. The Applicants respectfully disagree and traverse the rejection with an argument.

AAPA adds nothing to the deficiencies of Manatt or Schmutz as applied against the independent claims.

For at least the reasons discussed above, Schmutz or Manatt and the AAPA, taken separately or in combination, fail to render obvious the features of claim 12.

Withdrawal of the rejections is respectfully requested.

SUMMARY

It is submitted that the claims satisfy the requirements of 35 U.S.C. §§ 112, 102 and 103. It is also submitted that claims 1, 3-9 and 11-13 continue to be allowable. It is further submitted that the claims are not taught, disclosed or suggested by the prior art. The claims are therefore in a condition suitable for allowance. An early Notice of Allowance is requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON

/James J. Livingston, Jr./

James J. Livingston, Jr.
Reg.No. 55,394
209 Madison St, Suite 500
Alexandria, VA 22314
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

JJL/lad